

Claims

What is claimed is:

1. In a cotton harvester having a basket
5 including an interior for receiving and holding cotton
harvested by the harvester and apparatus for compacting
the harvested cotton into a compacted body, the basket
including an open side connecting with the interior and
a door having a proximal end connected adjacent to a
10 floor of the basket for pivotal movement between a
closed position in closing relation to the open side and
an open position extending sidewardly from the floor in
generally parallel relation thereto, the door having a
distal end opposite the proximal end and a cotton
15 conveying surface which faces the interior when the door
is in the closed position and which faces upwardly when
the door is in the open position, the cotton conveying
surface including elements movable for conveying the
compacted cotton from the interior sidewardly to the
20 distal end of the door, the improvement comprising:
a door extension supported adjacent to
the distal end of the door for pivotal movement between
a stored position in overlaying relation to the distal
end of the door and a deployed position extending
25 sidewardly therefrom, the door extension including a
free end which when the door is open and the extension
is in the deployed position is spaced sidewardly and a
predetermined distance below the distal end of the door,
the door extension including an upper surface which
30 extends from the distal end of the door to the free end
and over which the cotton will be conveyed sidewardly
and downwardly from the door, at least the free end of
the extension being located at an elevation sufficiently
lower than an adjacent end of the conveying surface of
35 the door when the door is in the open position and the

extension is in the deployed position such that a portion of a compacted body of cotton supported on the extension will be oriented and be to extend in a downward direction relative to a portion of the
5 compacted body supported on the door.

2. In the cotton harvester of claim 1, the improvement further comprising the upper surface of the door extension extending downwardly from the distal end
10 of the door to the free end of the extension when the door is in the open position and the extension is in the deployed position.

3. In the cotton harvester of claim 2, the
15 improvement comprising the upper surface of the extension extending downwardly from the distal end of the door at between about a 5 degree and a 15 degree angle to the cotton conveying surface of the door.

20 4. In the cotton harvester of claim 2, the upper surface of the extension including a plurality of elongate rollers rotatable in the downward direction for conveying cotton thereover downwardly toward the free end.

25 5. In the cotton harvester of claim 1, the improvement further comprising substantially the entire upper surface of the door extension when in the deployed position being generally located a predetermined
30 distance below the cotton conveying surface of the door.

6. In the cotton harvester of claim 5, the upper surface of the door extension comprising a movable belt.

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7. In the cotton harvester of claim 6, the improvement further comprising a drive for rotating the movable belt.

5 8. In the cotton harvester of claim 7, the improvement further comprising the drive being operable for moving the movable belt at variable speeds.

10 9. In the cotton harvester of claim 6, the improvement further comprising the drive being operable for moving the belt at a speed greater than a speed of the moving elements on the door.

15 10. In the cotton harvester of claim 1, the improvement further comprising a plurality of L shape members supporting the extension for the pivotal movement between the stored position and the deployed position and for holding the extension in the deployed position as the door is moved between the folded and
20 open positions.

11. An extension on an unloader door of a cotton receiving basket of a cotton harvester pivotable between a closed position in covering relation to an
25 open side of the basket and an open position extending sidewardly from the basket, the door including a cotton conveying surface which when the door is in the open position faces upwardly in at least generally parallel relation to a floor of an interior of the basket and
30 extends sidewardly from the floor to a distal end of the door opposite the basket, the extension comprising:
a frame pivotally connected to the distal end of the door for pivotal movement relative thereto between a stored position in overlaying relation to the
35 cotton conveying surface and a deployed position

extending sidewardly therefrom when the door is in the open position and upwardly therefrom when the door is in the closed position, and an upper surface extending from the distal end of the door to a free end of the frame
5 opposite the distal end, the free end being located a distance sufficiently below the distal end when the door is in the open position and the frame is in the deployed position such that cotton conveyed over the upper surface will be directed downwardly thereby over the
10 free end.

12. The extension of claim 11, further comprising the upper surface of the extension extending downwardly from the distal end of the door to the free
15 end of the extension when the door is in the open position and the extension is in the deployed position.

13. The extension of claim 12, further comprising the upper surface of the extension extending
20 downwardly from the distal end of the door at between about a 5 degree and a 15 degree angle to the cotton conveying surface of the door when the door is in the open position and the extension is in the deployed position.

25 14. The extension of claim 12, wherein the upper surface of the extension includes a plurality of elongate rollers rotatable in the downward direction for conveying cotton thereover downwardly toward the free
30 end.

15. The extension of claim 11, further comprising substantially the entire upper surface of the extension when in the deployed position being generally

located a predetermined distance below the cotton conveying surface of the door.

16. The extension of claim 15, wherein the
5 upper surface of the extension comprises a movable belt.

17. The extension of claim 16, further comprising a drive for rotating the movable belt.

10 18. The extension of claim 17, further comprising the drive being operable for moving the movable belt at variable speeds.

15 19. The extension of claim 16, wherein the cotton conveying surface of the door includes movable elements drivable at a speed for conveying the cotton thereover and the drive is operable for moving the belt at a speed greater than the speed of the moving elements on the door.

20 20. The extension of claim 11, wherein the frame comprises a plurality of L shape members supporting the extension for the pivotal movement between the stored position and the deployed position
25 and for holding the extension in the deployed position as the door is moved between the folded and open positions.

21. An unloader door arrangement for a cotton
30 receiving basket of a cotton harvester, comprising:
an unloader door including a proximal end mounted to the basket for pivotal movement of the door between a closed position in partial covering relation to an open side of the basket and an open position
35 extending sidewardly from the basket, a distal end

opposite the proximal end and a cotton conveying surface extending between the proximal and distal ends, the cotton conveying surface being oriented so as to face upwardly and being positioned so as to be at least
5 generally parallel to a floor of an interior of the basket and extending sidewardly from the floor when the door is in the open position; and

an extension connected to the distal end of the door for pivotal movement relative thereto between a
10 stored position in overlaying relation to the cotton conveying surface and a deployed position extending sidewardly therefrom when the door is in the open position and upwardly therefrom when the door is in the closed position so as to cover a portion of the open
15 side of the basket, the extension including an upper surface extending from the distal end of the door to a free end, the free end being located a distance sufficiently below the distal end when the door is in the open position and the extension is in the deployed
20 position such that cotton conveyed over the upper surface will be moved downwardly toward the free end.

22. The unloader door arrangement of claim 21, further comprising the upper surface of the
25 extension extending downwardly from the distal end of the door to the free end of the extension when the door is in the open position and the extension is in the deployed position.

30 23. The unloader door arrangement of claim 22, further comprising the upper surface of the extension extending downwardly from the distal end of the door at between about a 5 degree and a 15 degree angle to the cotton conveying surface of the door when

the door is in the open position and the extension is in the deployed position.

24. The unloader door arrangement of claim
5 22, wherein the upper surface of the extension includes a plurality of elongate rollers rotatable in the downward direction for conveying cotton thereover downwardly toward the free end.

10 25. The unloader door arrangement of claim 21, further comprising substantially the entire upper surface of the extension when in the deployed position being generally located a predetermined distance below the cotton conveying surface of the door.

15 26. The unloader door arrangement of claim 25, wherein the upper surface of the extension comprises a movable belt.

20 27. The unloader door arrangement of claim 26, further comprising a drive for rotating the movable belt.

25 28. The unloader door arrangement of claim 27, further comprising the drive being operable for moving the movable belt at variable speeds.

30 29. The unloader door arrangement of claim 26, wherein the cotton conveying surface of the door includes movable elements drivable at a speed for conveying the cotton thereover and the drive is operable for moving the belt at a speed greater than the speed of the moving elements on the door.

30. The unloader door arrangement of claim
21, wherein the extension comprises a frame including a
plurality of L shape members supporting the extension
for the pivotal movement between the stored position and
5 the deployed position and for holding the extension in
the deployed position as the door is moved between the
folded and open positions.